

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated March 28, 2007, has been received and its contents carefully reviewed.

Claims 1, 4, 5, 8-13, 15, and 16 are rejected to by the Examiner. With this response, claims 1, 8, 10 and 12 have been amended. No new matter has been added. Claims 1, 4, 5, 8-13, 15 and 16 remain pending in this application.

In the Office Action, claims 1, 4, 5, 10 and 11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,069,678 to Sakamoto et al. (hereinafter "Sakamoto") in view of U.S. Patent No. 6,806,925 to Ishii et al. (hereinafter "Ishii"). Claims 8-9, 12-13, and 15-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakamoto in view of Ishii and U.S. Patent No. 6,969,872 to Kim (hereinafter "Kim").

The rejection of claims 1, 4, 5, 10 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Sakamoto in view of Ishii is respectfully traversed and reconsideration is requested. Applicants submit that Sakamoto and Ishii disclose different types of liquid crystal display types that one of skill in the art would not seek to combine to make the combination recited by the claims.

Independent claim 1 recites an in-plane switching mode liquid crystal display device having a combination of features including "wherein the pixel electrode is formed on the passivation layer." In rejecting claim 1, the Examiner acknowledges that Sakamoto "does not explicitly disclose the pixel electrode formed on the passivation layer." (See Office Action, paragraph 3)

The Examiner cites Ishii as allegedly teaching "forming a pixel electrode on the passivation layer." As motivation for modifying the teachings of Sakamoto with Ishii, the Examiner states, "In light of Ishii, it would be obvious to one of ordinary skill to form Sakamoto's pixel electrode on the passivation layer because Sakamoto teaches that the pixel electrode can be formed in a number of ways."

Applicants respectfully disagree "In light of Ishii, it would have been obvious to one of ordinary skill in the art to form Sakamoto's pixel electrode on the passivation layer...". The LCD device of Sakamoto is a IPS mode display device, while the LCD device of Ishii is a

TN(Twisted Nematic) mode display device. In Sakamoto, at least one pixel electrode and the common electrode are formed in a strip shape having a predetermined width and disposed parallel to each other in the pixel on the same substrate. In Ishii, the pixel electrode and the common electrode are disposed in the whole area of the pixel on the different substrates to be facing each other. Further, the function of Sakamoto's pixel electrode is substantially different from that of the Ishii's pixel electrode. That is, in Sakamoto the electric field is generated in the direction parallel to the surface of the substrate between the pixel electrode and the common electrode which are formed on the same substrate in Sakamoto, while in Ishii the electric field is generated in the direction vertical to the surface of the substrate between the pixel electrode and the common electrode that are formed on the facing substrates. Thus, the structure and the function of Sakamoto's pixel electrode are different from those of Ishii's pixel electrode.

Accordingly, Applicants respectfully submit that one of skill in the art would not combine Sakamoto and Ishii to achieve the invention of claim 1, claim 1 is allowable over Sakamoto and Ishii.

Applicants note that claims 4 and 5 depend from claim 1 and each includes by reference all of the elements of claim 1. Accordingly, Applicants submit that claims 4 and 5 are allowable over Sakamoto and Ishii based on their dependencies from claim 1 and for the reasons given for claim 1.

Independent claim 10 recites an in-plane switching mode liquid crystal display device having a combination of elements including "at least one pixel electrode formed on a passivation layer in each pixel." In the Office Action, the Examiner rejects claim 10 for the same reasons as claim 1. Applicants' arguments with respect to claim 1 are equally applicable to claim 10, and Applicants respectfully submit that claim 10 is allowable over Sakamoto and Ishii for the same reasons given for claim 1 above.

Applicants note that claim 11 depends from claim 10 and includes by reference all of the elements of claim 10. Accordingly, Applicants submit that claim 11 is allowable over Sakamoto and Ishii based on the dependency from claim 10 and for the reasons given for claim 10.

The rejection of claims 8-9, 12-13, and 15-16 under 35 U.S.C. § 103(a) as being unpatentable over Sakamoto in view of Ishii and Kim is respectfully traversed and reconsideration is requested. Applicants submit that Sakamoto, Ishii and Kim, analyzed singly or in combination, do not teach or suggest each and every claimed element.

Claims 8 and 9 each recite an in-plane switching mode liquid crystal display device having a combination of features including “wherein each pixel electrode and each common electrode are on the passivation layer.” Applicants submit that Sakamoto does not teach this element of the claims. For example in each of the embodiments disclosed by Sakamoto, the pixel electrode is illustrated as overlapping the common electrode. Accordingly, one or both of the pixel electrode and the common electrode disclosed in Sakamoto must be formed on an insulating layer other than the passivation layer.

Examiner states, “In light of Ishii, it would be obvious to one of ordinary skill to form Sakamoto’s pixel electrode on the passivation layer because Sakamoto teaches that the pixel electrode can be formed in a number of ways.” Applicants respectfully disagree “In light of Ishii, it would have been obvious to one of ordinary skill in the art to form Sakamoto’s pixel electrode on the passivation layer...” for the reasons given for claim 1.

The Examiner cites Kim as teaching “a passivation formed of an organic material such as photoacryl.” Applicants do not reach the Examiner’s conclusion regarding the teachings of Kim. Applicants submit that Kim does not cure the deficiencies in the teachings of Sakamoto with regards to “wherein each pixel electrode and each common electrode are on the passivation layer.” Applicants respectfully submit that as Sakamoto, Ishii and Kim, analyzed singly or in combination, do not teach each and every element of claims 8 and 9, claims 8 and 9 are allowable over Sakamoto, Ishii and Kim.

Independent claim 12 recites an in-plane switching mode liquid crystal display device having a combination of elements including “a first common electrode formed between the first and second pixel electrodes, and on the passivation layer” and “wherein each first and second pixel electrode is on the passivation layer.” In the Office Action, the Examiner rejects claim 12 for the same reasons as claim 8. Applicants’ arguments with respect to claim 8 are equally applicable to claim 12. Accordingly, Applicants respectfully submit that claim 12 is allowable over Sakamoto, Ishii and Kim for the same reasons given for claim 8 above.

Applicants note that claims 13, 15, and 16 depend from claim 12 and that each includes by reference all of the elements of claim 12. Accordingly, Applicants submit that claim 13, 15, and 16 are allowable over Sakamoto, Ishii and Kim based on their respective dependencies from claim 12 and for the reasons given for claim 12.


Applicants believe the foregoing amendments and remarks place the application in condition for allowance and early, favorable action is respectfully solicited.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. *A duplicate copy of this sheet is enclosed.*

Respectfully submitted,

Dated: June 28, 2007

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